

AMENDMENTS TO THE DRAWINGS

Please note that Applicant submits herewith three replacement sheets, covering Figures 1-3, in accordance with the Examiner's direction. These replacement sheets each include the legend "– Prior Art –" and the label "Replacement Sheet," in accordance with the Examiner's requests. Please replace the earlier-submitted drawing sheets covering Figures 1-3 with those currently submitted.

REMARKS

1. Summary of Office Action Mailed October 7, 2004

Claims 1-17 are currently pending, all of which are amended herein. In the October 7, 2004 office action, the Examiner (i) objected to certain informalities in the drawings, specification, and claims 1, 4-7, 15, and 17; (ii) made provisional nonstatutory double-patenting rejections of claims 1 and 15; (iii) rejected claims 1-2 and 9-15 under 35 USC § 103(a); (iv) objected to claims 3, 4, and 16 as dependent on a rejected base claim, indicating that these claims would be allowable if rewritten in independent form; and (v) indicated that claims 5-8 and 17 would be allowable if rewritten to overcome the objections set forth in the office action.

2. Summary of Applicants' Response to the October 7, 2004 Office Action

In this response to the October 7, 2004 office action, Applicant (i) corrects the objected-to informalities in the drawings, specification, and claims 1, 4-7, 15, and 17, in accordance with the Examiner's direction; (ii) submits a terminal disclaimer to overcome the Examiner's provisional nonstatutory double-patenting rejection of claims 1 and 15; (iii) overcomes the Examiner's § 103(a) rejections of claims 1 and 15, placing those independent claims and their dependent claims (2-4, 9-14, and 16) in condition for allowance; (iv) rewrites claims 5-8 and 17 to overcome the Examiner's objections set forth in the office action, placing those claims in condition for allowance; and (iv) amends all pending claims (1-17) and adds two new independent claims (18 and 19), placing all claims (1-19) in condition for allowance.

3. Response to Examiner's Objections to the Drawings, Specification, and Claims

In the October 7, 2004 office action, the Examiner objected to certain informalities in the drawings, specification, and claims 1, 4-7, 15, and 17. With respect to the drawings, as stated above, Applicant submits herewith three replacement sheets, covering Figures 1-3, in accordance with the Examiner's direction. Applicant respectfully requests that the Examiner's objections to the drawings be withdrawn. With respect to the specification, Applicant herein amends the specification to address the Examiner's specific objection, as well as to make other amendments. Applicant respectfully requests that the Examiner's objections to the specification be withdrawn. With respect to the claims, Applicant herein amends the claims to address the Examiner's objections, as well as to make other amendments. Applicant respectfully requests that the Examiner's objections to the claims be withdrawn.

4. Response to the Examiner's Double-Patenting Rejections

In the October 7, 2004 office action, the Examiner made provisional nonstatutory double-patenting rejections of claims 1 and 15. These double-patenting rejections were made on the basis of a currently pending patent application. In response, Applicant submits herewith a terminal disclaimer, and thus respectfully requests that the Examiner's provisional nonstatutory double-patenting rejections of claims 1 and 15 be withdrawn.

5. Response to the Examiner's § 103(a) Rejections of Independent Claims 1 and 15

In the October 7, 2004 office action, the Examiner rejected independent claims 1 and 15 under 35 USC § 103(a) as being unpatentable over the "Description of Prior Art" section in the instant application (the "Admitted Prior Art" (APA)), in view of Rathonyi et al. (U.S. Patent No.

6,359,877 B1). Because the APA and Rathonyi – taken separately or together – fail to teach or disclose the subject matter of claims 1 and 15 as amended, Applicant respectfully requests that the Examiner’s § 103(a) rejections of independent claims 1 and 15 be withdrawn.

Claim 1 is directed to a data processing method, and claim 15 is directed to a computer readable data recording media having instructions for implementing that method. Claims 1 and 15 have been similarly amended herein. Thus, for clarity of presentation, this discussion refers only to claim 1, with the understanding that the arguments apply with equal force to claim 15.

As currently amended, the data processing method of claim 1 comprises the steps of “a) generating a radio link control (RLC) – protocol data unit (PDU) (RLC-PDU), used for combining pre-transmitted data and re-transmitted data with a changeable coding rate, in a transmitting RLC layer, and a HARQ-RLC-Control-PDU based on header information of the RLC-PDU;...and d) transforming the [RLC-PDU] and the [HARQ-RLC-Control-PDU]...to a radio transmission form, wherein at least the [HARQ-RLC-Control-PDU] is encoded using a low coding rate, and then transmitting the radio transmission form to a receiver through a physical channel.” Neither step is taught or suggested by the combination of the APA and Rathonyi.

First, nowhere in Rathonyi is it contemplated to send a protocol data unit (the RLC-PDU) and a control PDU generated based on header information of the RLC-PDU together in a radio transmission form. By implication, nowhere in Rathonyi is it contemplated to encode this control PDU using a low coding rate (i.e. a coding rate using a high level of redundancy) to increase the likelihood of stable transmission of the header information. Rathonyi is focused on packet size and *transmission* rate (rather than coding rate), and is thus inapplicable.

The Examiner cites Rathonyi for the limited purpose of showing that the prior art teaches combining pre-transmitted data and re-transmitted data in a radio frame prior to transmission of

the radio frame from a transmitter to a receiver. Whether or not Rathonyi teaches such a step is immaterial, however, as claim 1 does not include that step. In claim 1, what is combined in a radio frame prior to transmission is the RLC-PDU and the control PDU, where the control PDU is generated based on header information of the RLC-PDU, and the control PDU is encoded using a low coding rate, to increase the likelihood of stably transmitting the RLC-PDU-header information carried by the control PDU. Thus, Rathonyi is inapposite.

Turning now to the APA, Applicant respectfully submits that the Examiner has interpreted certain statements in the APA as describing what is taught by the prior art, when in actuality, these statements describe what is lacking in the prior art. Specifically, the APA explains that neither step (a) nor step (d) of claim 1 are taught by the prior art. The APA explains that the prior art does not teach (i) generating both an RLC-PDU and a control PDU (the HARQ-RLC-Control-PDU), where the control PDU is generated based on header information of the RLC-PDU; (ii) packaging the RLC-PDU and the control PDU into a single radio transmission form, and then transmitting that radio transmission form to a receiver; and (iii) encoding the control PDU using a low coding rate, thus increasing the likelihood that the control PDU (i.e. the RLC-PDU-header information) will be stably transmitted to the receiver.

Applicant, in the APA, describes these deficiencies in the prior art by describing what **should be** done (i.e., is not currently being done). This is what is meant in the APA by “[t]he relational information **should be** transmitted with a low coding rate, regardless of the coding rate used for the re-transmitted data, thereby ensuring the relational information’s quality of communication.” (emphasis added). This is reinforced by the final statement of the APA, that “[a] method of stably transmitting the RLC-PDU header is required.”

In summary, neither the APA nor Rathonyi, nor the combination thereof, teaches the steps of generating an RLC-PDU, generating a control PDU based on header information of the RLC-PDU, encoding at least the control PDU using a low coding rate (i.e. a coding rate using a high degree of redundancy to increase the likelihood of stable transmission), packaging the RLC-PDU and the control PDU in a single radio transmission form, and then transmitting that radio transmission form to a receiver. Thus, independent claims 1 and 15 are allowable. Claims 2-4 and 9-14 depend from claim 1, and claim 16 depends from claim 15. Because claims 1 and 15 are allowable, claims 2-4, 9-14, and 16 are allowable as well.

6. Comments on Independent Claims 18 and 19

In this response to the October 7, 2004 office action, Applicant adds independent claims 18 and 19. Applicant submits that each of these claims is supported by the specification, and patentable over the prior art. Applicant thus respectfully requests notice of allowance as to independent claims 18 and 19.

7. Response to the Examiner's Indication of Allowable Subject Matter

In the October 7, 2004 office action, the Examiner indicated that claims 5-8 and 17 would be allowable if rewritten to overcome the objections set forth in the office action. As stated above, the claims have been amended to address the Examiner's objections. Thus, Applicant respectfully requests that the Examiner's objections to claims 5-8 and 17 be withdrawn.

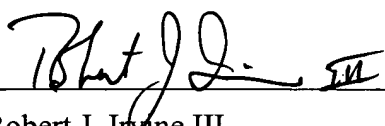
8. Conclusion

Prompt notice of allowance is respectfully requested. Should the Examiner have any questions, the Examiner is encouraged to contact the Applicant's attorney, Robert Irvine, at his direct dial number of 312-913-3305.

Respectfully submitted,

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